INDEX OF AUTHORS

VOLUME XXXIV

TRANSACTIONS OF AMERICAN SOCIETY FOR METALS

1945

A

Aul, E. L. 505

B

Ball, Leslie W. 545
Benninghoff, W. E. 310
Berman, F. 143

C

Clogg, Jr., Mason 71, 108
Cohen, Morris 216
Comstock, G. F. 425

D

Dean, R. S. 443, 465, 481

E

Ebert, L. J. 505, 517

F

Fitterer, G. R. 41
Fletcher, S. G. 216

G

Goss, Norman P. 630
Graham, T. R. 443, 481

H

Harker, David 156
Harrington, R. H. 143
Hayes, E. T. 443
Huber, R. W. 465

K

Kennedy, Jr., Ralph G. 250

L

Lewis, J. R. 425
Long, J. R. 443, 465, 481
Loria, Edward A. 407
Lubahn, J. D. 505, 517

M

Martin, D. L. 351
Matthews, C. W. 481
McIntyre, John 202
Meinhart, W. L. 589

O

Osborn, Jr., H. B. 310

P

Parker, Earl R. 156
Potter, E. V. 443, 465

S

Sachs, G. 505, 517
Sykes, W. P. 415

W

Wiley, F. E. 351

Z

Zapffe, Carl A. 71, 108
Ziegler, N. A. 589

INDEX OF SUBJECTS AND AUTHORS OF PAPERS

VOLUME XXXIV

TRANSACTIONS OF AMERICAN SOCIETY FOR METALS

1945

A

Acid Open-Hearth Process; Some Fundamental Problems in the Manufacture of Steel by the—*By G. R. Fitterer* 41
Age Hardening Copper-Manganese-Nickel Alloys—*By R. S. Dean, J. R. Long, T. R. Graham and C. W. Matthews* 481
Aircraft Parts; Interpretation of Radiographs—*By Leslie W. Ball* 545
Aluminum and Titanium Deoxidation for Preventing Strain Aging Embrittlement in Low Carbon Steel; A Comparison of—*By G. F. Comstock and J. R. Lewis* 425
Amendment of the Constitution of the A.S.M. 16
Annual Address of President 24
Annual Dinner of A.S.M. 19
Annual Report of Secretary 34
Annual Report of Treasurer 29
Annual Meeting of A.S.M. 14
Ar′ Reaction in Some Iron-Cobalt-Tungsten Alloys and the Same Modified with Chromium—*By W. P. Sykes* 415

C

Campbell Memorial Lecture—19th; Some Fundamental Problems in the Manufacture of Steel by the Acid Open-Hearth Process—*By G. R. Fitterer* 41
Carbon Steels (Plain); Induction Hardening of—*By D. L. Martin and F. E. Wiley* 351
Cast Chromium-Molybdenum Steels; Characteristics and Properties of Some—*By N. A. Ziegler and W. L. Meinhart* 589
Characteristics and Properties of Some Cast Chromium-Molybdenum Steels—*By N. A. Ziegler and W. L. Meinhart* 589
Chromium; Ar′ Reaction in Some Iron-Cobalt-Tungsten Alloys and the Same Modified with—*By W. P. Sykes* 415
Chromium-Molybdenum Steels; Characteristics and Properties of Some Cast—*By N. A. Ziegler and W. L. Meinhart* 589
Cleavage Structures of Iron-Silicon Alloys—*By Carl A. Zapffe and Mason Clogg, Jr.* 108
Cobalt-Iron-Tungsten Alloys and the Same Modified with Chromium; Ar′ Reaction in Some—*By W. P. Sykes* 415
Cobalt Steels; Rates of Tempering in—*By Edward A. Loria* 407
Cold Rolling on the Structure of Hadfield Manganese Steel; Effect of—*By Norman P. Goss* 630
Comparison of Aluminum and Titanium Deoxidation for Preventing Strain Aging Embrittlement in Low Carbon Steel—*By G. F. Comstock and J. R. Lewis* 425
Copper-Manganese Alloys; Properties of Transitional Structures in—*By R. S. Dean, E. V. Potter, J. R. Long and R. W. Huber* 465
Copper-Manganese Equilibrium System—*By R. S. Dean, J. R. Long, T. R. Graham, E. V. Potter and E. T. Hayes* 443

Copper-Manganese-Nickel Alloys; Age Hardening—*By R. S. Dean, J. R. Long, T. R. Graham and C. W. Matthews* 481
Cyaniding of High Speed Steel Prior to Hardening; Experiments of Sodium—*By John McIntyre* 202

D

Dimensional Stability of Steel—Part I—Subatmospheric Transformation of Retained Austenite—*By S. G. Fletcher and Morris Cohen* 216

E

Effect of Cold Rolling on the Structure of Hadfield Manganese Steel—*By Norman P. Goss* 630
Effect of Fiber on Notched Bar Tensile Strength Properties of a Heat Treated Low Alloy Steel—*By G. Sachs, J. D. Lubahn, L. J. Ebert and E. L. Aul* 505
Effects of Notches of Varying Depth on the Strength of Heat Treated Low Alloy Steels—*By G. Sachs, J. D. Lubahn and L. J. Ebert* 517
Election of Officers of A.S.M. 15
Experiments of Sodium Cyaniding of High Speed Steel Prior to Hardening—*By John McIntyre* 202

F

Fiber on Notched Bar Tensile Strength Properties of a Heat Treated Low Alloy Steel; Effect of—*By G. Sachs, J. D. Lubahn, L. J. Ebert and E. L. Aul* 505
Fractography—A New Tool for Metallurgical Research—*By Carl A. Zapffe and Mason Clogg, Jr.* 71
Fracture Studies of Soldered Joints—*By F. Berman and R. H. Harrington* 143
Frequency and Time Cycles for the Processing of Metallic Parts with Induction Heating; Practical Aspects of the Selection of—*By W. E. Benninghoff and H. B. Osborn, Jr.* 310

G

Grain Growth and Grain Shape—*By David Harker and Earl R. Parker* 156
Grain Shape and Grain Growth—*By David Harker and Earl R. Parker* .. 156

H

Hadfield Manganese Steel; Effect of Cold Rolling on the Structure of—*By Norman P. Goss* 630
Hardening; Experiments of Sodium Cyaniding of High Speed Steel Prior to—*By John McIntyre* 202
Heat Treated Low Alloy Steels; Effects of Notches of Varying Depth on the Strength of—*By G. Sachs, J. D. Lubahn and L. J. Ebert* 517
High Speed Steel (Molybdenum-Tungsten); A Study of Subzero Treatments Applied to—*By Ralph G. Kennedy, Jr.* 250
High Speed Steel Prior to Hardening; Experiments of Sodium Cyaniding of—*By John McIntyre* 202

I

Induction Hardening of Plain Carbon Steels—*By D. L. Martin and F. E. Wiley* 351
Induction Heating; Practical Aspects of the Selection of Frequency and Time Cycles for the Processing of Metallic Parts with—*By W. E. Benninghoff and H. B. Osborn, Jr.* 310

Interpretation of Radiographs: Particularly of Aircraft Parts—*By Leslie W. Ball* 545
Iron-Cobalt-Tungsten Alloys and the Same Modified with Chromium; Ar' Reaction in Some—*By W. P. Sykes*..... 415
Iron-Silicon Alloys; Cleavage Structures of—*By Carl A. Zapffe and Mason Clogg, Jr*..... 108

J

Joints; Fracture Studies of Soldered—*By F. Berman and R. H. Harrington* 143

L

Low Alloy Steel; Effect of Fiber on Notched Bar Tensile Strength Properties of a Heat Treated—*By G. Sachs, J. D. Lubahn, L. J. Ebert and E. L. Aul*..... 505
Low Alloy Steels; Effects of Notches of Varying Depth on the Strength of Heat Treated—*By G. Sachs, J. D. Lubahn and L. J. Ebert*..... 517
Low Carbon Steel; A Comparison of Aluminum and Titanium Deoxidation for Preventing Strain Aging Embrittlement in—*By G. F. Comstock and J. R. Lewis*..... 425

M

Manganese-Copper Alloys; Properties of Transitional Structures in—*By R. S. Dean, E. V. Potter, J. R. Long and R. W. Huber*..... 465
Manganese-Copper Equilibrium System—*By R. S. Dean, J. R. Long, T. R. Graham, E. V. Potter and E. T. Hayes*..... 443
Manganese-Copper-Nickel Alloys; Age Hardening—*By R. S. Dean, J. R. Long, T. R. Graham and C. W. Matthews*..... 481
Manganese (Hadfield) Steel; Effect of Cold Rolling on the Structure of—*By Norman P. Goss*..... 630
Manufacture of Steel by the Acid Open-Hearth Process; Some Fundamental Problems in the—*By G. R. Fitterer*..... 41
Metallic Parts Processing with Induction Heating; Practical Aspects of the Selection of Frequency and Time Cycles for the—*By W. E. Benninghoff and H. B. Osborn, Jr*..... 310
Molybdenum-Chromium Steels; Characteristics and Properties of Some Cast—*By N. A. Ziegler and W. L. Meinhart*..... 589
Molybdenum-Tungsten High Speed Steel; Study of Subzero Treatments Applied to—*By Ralph G. Kennedy, Jr*..... 250

N

Nickel-Copper-Manganese Alloys; Age Hardening—*By R. S. Dean, J. R. Long, T. R. Graham and C. W. Matthews*..... 481
Notched Bar Tensile Strength Properties of a Heat Treated Low Alloy Steel; Effect of Fiber on—*By G. Sachs, J. D. Lubahn, L. J. Ebert and E. L. Aul* 505
Notches of Varying Depth on the Strength of Heat Treated Low Alloy Steels; Effects of—*By G. Sachs, J. D. Lubahn and L. J. Ebert*..... 517

O

Open-Hearth Process (Acid); Some Fundamental Problems in the Manufacture of Steel by the—*By G. R. Fitterer*..... 41

P

Plain Carbon Steels; Induction Hardening—*By D. L. Martin and F. E. Wiley* 351
Practical Aspects of the Selection of Frequency and Time Cycles for the Processing of Metallic Parts with Induction Heating—*By W. E. Benninghoff and H. B. Osborn, Jr.*..... 310
Presentation of Awards 20, 21, 22
Properties and Characteristics of Some Cast Chromium-Molybdenum Steels—*By N. A. Ziegler and W. L. Meinhart*..... 589
Properties of Transitional Structures in Copper-Manganese Alloys—*By R. S. Dean, E. V. Potter, J. R. Long and R. W. Huber*..... 465

R

Radiograph Interpretation: Particularly of Aircraft Parts—*By Leslie W. Ball* 545
Rates of Tempering in Cobalt Steels—*By Edward A. Loria*..... 407
Retained Austenite; Subatmospheric Transformation of (Part I); Dimensional Stability of Steel—*By S. G. Fletcher and Morris Cohen*... 216

S

Secretary's Report 34
Selection of Frequency and Time Cycles for the Processing of Metallic Parts with Induction Heating; Practical Aspects of the—*By W. E. Benninghoff and H. B. Osborn, Jr.*..... 310
Sodium Cyaniding of High Speed Steel Prior to Hardening; Experiments of—*By John McIntyre* 202
Soldered Joints; Fracture Studies of—*By F. Berman and R. H. Harrington* 143
Some Fundamental Problems in the Manufacture of Steel by the Acid Open-Hearth Process—*By G. R. Fitterer*..... 41
Stability (Dimensional) of Steel—Part I—Subatmospheric Transformation of Retained Austenite—*By S. G. Fletcher and Morris Cohen*.... 216
Strain Aging Embrittlement Prevention in Low Carbon Steel; A Comparison of Aluminum and Titanium Deoxidation for—*By G. F. Comstock and J. R. Lewis*..... 425
Study of Subzero Treatments Applied to Molybdenum-Tungsten High Speed Steel—*By Ralph G. Kennedy, Jr.*..... 250
Subatmospheric Transformation of Retained Austenite—Part I; Dimensional Stability of Steel—*By S. G. Fletcher and Morris Cohen*..... 216
Subzero Treatments Applied to Molybdenum-Tungsten High Speed Steel —*By Ralph G. Kennedy, Jr.*..... 250

T

Technical Program and Reports of Officers, A.S.M.—26th Annual Convention, Cleveland, October 16 to 20, 1944..... 1
Tempering Rates in Cobalt Steels—*By Edward A. Loria*..... 407
Titanium and Aluminum Deoxidation for Preventing Strain Aging Embrittlement in Low Carbon Steel; Comparison of—*By G. F. Comstock and J. R. Lewis*..... 425
Transitional Structures in Copper-Manganese Alloys; Properties of—*By R. S. Dean, E. V. Potter, J. R. Long and R. W. Huber* 465
Treasurer's Report 29
Tungsten-Iron-Cobalt Alloys and the Same Modified with Chromium; Ar' Reaction in Some—*By W. P. Sykes*..... 415